## Raw Sequence Listing Error Summary

SERIAL NUMBER: 09ERROR DETECTED SUGGESTED CORRECTION ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE The number/text at the end of each line "wrapped" down to the next line. Wrapped Nucleics This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3, as this will prevent "wrapping". The amino acid number/text at the end of each line "wrapped" down to the next line. Wrapped Aminos This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3, as this will prevent "wrapping". The rules require that a line not exceed 72 characters in length. This includes spaces. Incorrect Line Length The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs Misaligned Amino Acid between the numbering. It is recommended to delete any tabs and use spacing between the numbers. Numbering This file was not saved in ASCII (DOS) text, as required by the Sequence Rules. Non-ASCII Please ensure your subsequent submission is saved in ASCII text so that it can be processed. Sequence(s) \_\_\_\_\_ contain n's or Xaa's which represented more than one residue. Variable Length As per the rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the (ix) feature section that some may be missing. A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid Patentin ver. 2.0 "bug" . Normally, Patentin would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies primarily to the mandatory <220>-<223> sections for Artificial or Unknown sequences. missing. If intentional, please use the following format for each skipped sequence: Skipped Sequences Sequence(s) (2) INFORMATION FOR SEQ ID NO:X: (OLD RULES) (i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS") (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: This sequence is intentionally skipped Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s). Sequence(s) \_\_\_\_ missing. If intentional, please use the following format for each skipped sequence. Skipped Sequences (NEW RULES) <210> sequence id number <400> sequence id number 000 Use of n's or Xaa's Use of n's and/or Xaa's have been detected in the Sequence Listing. Use of <220> to <223> is MANDATORY if n's or Xaa's are present. (NEW RULES) In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents. Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Use of "Artificial" Valid response is Artificial Sequence. (NEW RULES) are missing the <220>Feature and associated headings. Use of <220>Feature Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial Sequence" or "Unknown" (NEW RULES) Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules) Please do not use "Copy to Disk" function of Patentin version 2.0. This causes a corrupted Patentin ver. 2.0 "bug" file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).

AMC - Biotechnology Systems Branch - 4/06/2001

Instead, please use "File Manager" or any other means to copy file to floppy disk.

OIPE

DATE: 04/19/2001 RAW SEQUENCE LISTING PATENT APPLICATION: US/09/825,517 TIME: 12:02:25

Input Set : A:\Dyax-161.app

Does Not Comply Output Set: N:\CRF3\04192001\1825517.raw Corrected Diskette Needed

3 <110> APPLICANT: Rondon, Isaac J 4 Ladner, Robert C 6 <120> TITLE OF INVENTION: BINDING PEPTIDES FOR CARCINOEMBRYONIC ANTIGEN (CEA) M1-3,6 8 <130> FILE REFERENCE: Sequence Listing DYX-016.1 US C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/825,517 11 <141> CURRENT FILING DATE: 2001-04-03 13 <150> PRIOR APPLICATION NUMBER: US 09/541345 14 <151> PRIOR FILING DATE: 2000-04-03 16 <160> NUMBER OF SEQ ID NOS: 151 18 <170> SOFTWARE: PatentIn Ver. 2.1 20 <210> SEQ ID NO: 1 21 <211> LENGTH: 16 22 <212> TYPE: PRT 23 <213> ORGANISM: Artificial Sequence 25 <220> FEATURE: 26 <223> OTHER INFORMATION: Description of Artificial Sequence: CEA binding polypeptide 27 29 <220> FEATURE: 30 <221> NAME/KEY: VARIANT 31 <222> LOCATION: (1) 32 <223> OTHER INFORMATION: Xaa is Asn, Asp or is absent 34 <220> FEATURE: 35 <221> NAME/KEY: VARIANT 36 <222> LOCATION: (2) 37 <223> OTHER INFORMATION: Xaa is Trp 39 <220> FEATURE: 40 <221> NAME/KEY: VARIANT 41 <222> LOCATION: (3) 42 <223> OTHER INFORMATION: Xaa is Asp, Phe or Val 44 <220> FEATURE: 45 <221> NAME/KEY: VARIANT 46 <222> LOCATION: (5) 47 <223> OTHER INFORMATION: Xaa is Asn, Glu or Met 49 <220> FEATURE: 50 <221> NAME/KEY: VARIANT 51 <222> LOCATION: (6) 52 <223> OTHER INFORMATION: Xaa is Asn, Leu, Met or Phe 54 <220> FEATURE: 55 <221> NAME/KEY: VARIANT 56 <222> LOCATION: (7) 57 <223> OTHER INFORMATION: Xaa is Asp, Gly, Ile, Lys, Phe or Thr 59 <220> FEATURE: 60 <221> NAME/KEY: VARIANT 61 <222> LOCATION: (8) 62 <223> OTHER INFORMATION: Xaa is Ala, Gln, gly Lys or Thr 64 <220> FEATURE:

65 <221> NAME/KEY: VARIANT

RAW SEQUENCE LISTING DATE: 04/19/2001 PATENT APPLICATION: US/09/825,517 TIME: 12:02:25

Input Set : A:\Dyax-161.app

Output Set: N:\CRF3\04192001\1825517.raw

66 <222> LOCATION: (9) 67 <223> OTHER INFORMATION: Xaa is Arg, Asn, Asp, Glu or Gly 69 <220> FEATURE: 70 <221> NAME/KEY: VARIANT 71 <222> LOCATION: (10) 72 <223> OTHER INFORMATION: Xaa is Gln, Leu or Gly 74 <220> FEATURE: 75 <221> NAME/KEY: VARIANT 76 <222> LOCATION: (11) 77 <223> OTHER INFORMATION: Xaa is Ala, Trp or Tyr 79 <220> FEATURE: 80 <221> NAME/KEY: VARIANT 81 <222> LOCATION: (12) 82 <223> OTHER INFORMATION: Xaa is Ala, Gly, His, Phe, Thr or Val 84 <220> FEATURE: 85 <221> NAME/KEY: VARIANT 86 <222> LOCATION: (14) 87 <223> OTHER INFORMATION: Xaa is Asn, Gln, Phe, Ser or Val 89 <220> FEATURE: 90 <221> NAME/KEY: VARIANT 91 <222> LOCATION: (15) 92 <223> OTHER INFORMATION: Xaa is Arg, Leu Pro or Ser 94 <220> FEATURE: 95 <221> NAME/KEY: VARIANT 96 <222> LOCATION: (16) 97 <223> OTHER INFORMATION: Xaa is Leu, Ser, Trp or Tyr 99 <4QO> SEQUENCE: 1 / / / / / / W--> 100 Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa 1 101 104 <210> SEQ ID NO: 2 105 <211> LENGTH: 16 106 <212> TYPE: PRT 107 <213> ORGANISM: Artificial Sequence 109 <220> FEATURE: 110 <223> OTHER INFORMATION: Description of Artificial Sequence: family of preferred CEA binding moieties 113 <220> FEATURE: 114 <221> NAME/KEY: VARIANT 115 <222> LOCATION: (1) 116 <223> OTHER INFORMATION: Xaa is Asn or Asp 118 <220> FEATURE: 119 <221> NAME/KEY: VARIANT 120 <222> LOCATION: (6) 121 <223> OTHER INFORMATION: Xaa is/Ph/, Met, Leu or Asn 123 <220> FEATURE: 124 <221> NAME/KEY: VARIANT 125 <222> LOCATION: (7)

126 <223> OTHER INFORMATION: Xaa is Asp, Gly, Ile, Lys, Phe or Thr

128 <220> FEATURE:

DATE: 04/19/2001

TIME: 12:02:25

Input Set : A:\Dyax-161.app Output Set: N:\CRF3\04192001\I825517.raw 129 <221> NAME/KEY: VARIANT 130 <222> LOCATION: (9) 131 <223> OTHER INFORMATION: Xaa is Arg, Asn, Asp, Glu, Gly or Trp 133 <220> FEATURE: 134 <221> NAME/KEY: VARIANT 135 <222> LOCATION: (12) 136 <223> OTHER INFORMATION: Xaa is Ala, Gly, His, Phe, Thr, Tyr or Val 138 <220> FEATURE: 139 <221> NAME/KEY: VARIANT 140 <222> LOCATION: (15) 141 <223> OTHER INFORMATION: Xaa is Arg, Leu, Pro or Ser 143 <220> FEATURE: 144 <221> NAME/KEY: VARIANT 145 <222> LOCATION: (16) 146 <223> OTHER INFORMATION: Xaa is Leu, Ser, Trp or Tyr 148 <400> SEQUENCE: 2 / / / --> 149 Xaa Trp Val Cys Glu Xaa Xaa Lys Xaa Gln Trp Xaa Cys Asn Xaa Xaa 150 1 5 , 10 . 153 <210> SEQ ID NO: 3 154 <211> LENGTH: 10 155 <212> TYPE: PRT 156 <213> ORGANISM: Artificial Sequence 158 <220> FEATURE: 159 <223> OTHER INFORMATION: Description of Artificial Sequence: CEA binding 160 loop 162 <220> FEATURE: 163 <221> NAME/KEY: VARIANT 164 <222> LOCATION: (2) 165 <223> OTHER INFORMATION: Xaa is Asn, Glu or Met 167 <220> FEATURE: 168 <221> NAME/KEY: VARIANT 169 <222> LOCATION: (3) 170 <223> OTHER INFORMATION: Xaa is Asn, Leu, 172 <220> FEATURE: 173 <221> NAME/KEY: VARIANT 174 <222> LOCATION: (4) 175 <223> OTHER INFORMATION: Xaa is Asp, Gly, Ile, Lys, Phe or Thr 177 <220> FEATURE: 178 <221> NAME/KEY: VARIANT 179 <222> LOCATION: (5) 180 <223> OTHER INFORMATION: Xaa is Ala, Gln, Gly, Lys or Thr 182 <220> FEATURE: 183 <221> NAME/KEY: VARIANT 184 <222> LOCATION: (6) 185 <223> OTHER INFORMATION: Xaa is Arg, Asn, Asp, Glu or Gly 187 <220> FEATURE: 188 <221> NAME/KEY: VARIANT 189 <222> LOCATION: (7) 190 <223> OTHER INFORMATION: Xaa is Gln, Gly or Leu

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/825,517

RAW SEQUENCE LISTING DATE: 04/19/2001 PATENT APPLICATION: US/09/825,517 TIME: 12:02:25

Input Set: A:\Dyax-161.app
Output Set: N:\CRF3\04192001\1825517.raw

192 <220> FEATURE: 193 <221> NAME/KEY: VARIANT 194 <222> LOCATION: (8) 195 <223> OTHER INFORMATION: Xaa is Ala, Trp or Tyr 197 <220> FEATURE: 198 <221> NAME/KEY: VARIANT 199 <222> LOCATION: (9) 200 <223> OTHER INFORMATION: Xaa is Ala, Gly, His, Phe, Thr or Val 202 <400> SEQUENCE: 3 W--> 203 Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys 5 207 <210> SEQ ID NO: 4 208 <211> LENGTH: 16 209 <212> TYPE: PRT 210 <213> ORGANISM: Artificial Sequence 212 <220> FEATURE: 213 <223> OTHER INFORMATION: Description of Artificial Sequence: CEA binding polypeptide 216 <400> SEQUENCE: 4 217 Asn Trp Val Cys Asn Leu Phe Lys Asn Gln Trp Phe Cys Asn Ser Tyr 10 221 <210> SEQ ID NO: 5 222 <211> LENGTH: 16 223 <212> TYPE: PRT 224 <213> ORGANISM: Artificial Sequence 226 <220> FEATURE: 227 <223> OTHER INFORMATION: Description of Artificial Sequence: CEA binding polypeptide 230 <400> SEQUENCE: 5 231 Asp Trp Val Cys Glu Asn Lys Lys Asp Gln Trp Thr Cys Asn Leu Leu 10 235 <210> SEO ID NO: 6 236 <211> LENGTH: 16 237 <212> TYPE: PRT 238 <213> ORGANISM: Artificial Sequence 240 <220> FEATURE: 241 <223> OTHER INFORMATION: Description of Artificial Sequence: CEA binding 242 polypeptide 244 <400> SEQUENCE: 6 245 Asn Trp Asp Cys Met Phe Gly Ala Glu Gly Trp Ala Cys Ser Pro Trp 246 1 249 <210> SEQ ID NO: 7 250 <211> LENGTH: 16 251 <212> TYPE: PRT 252 <213> ORGANISM: Artificial Sequence 254 <220> FEATURE: 255 <223> OTHER INFORMATION: Description of Artificial Sequence: CEA binding polypeptide

258 <400> SEQUENCE: 7

DATE: 04/19/2001

TIME: 12:02:25

Input Set : A:\Dyax-161.app Output Set: N:\CRF3\04192001\1825517.raw 259 Asp Trp Val Cys Glu Lys Thr Thr Gly Gly Tyr Val Cys Gln Pro Leu 263 <210> SEQ ID NO: 8 264 <211> LENGTH: 16 265 <212> TYPE: PRT 266 <213> ORGANISM: Artificial Sequence 268 <220> FEATURE: 269 <223> OTHER INFORMATION: Description of Artificial Sequence: CEA binding polypeptide 272 <400> SEQUENCE: 8 273 Asn Trp Phe Cys Glu Met Ile Gly Arg Gln Trp Gly Cys Val Pro Ser 15 1 274 277 <210> SEQ ID NO: 9 278 <211> LENGTH: 16 279 <212> TYPE: PRT 280 <213> ORGANISM: Artificial Sequence 282 <220> FEATURE: 283 <223> OTHER INFORMATION: Description of Artificial Sequence: CEA binding polypeptide 286 <400> SEQUENCE: 9 287 Asp Trp Val Cys Asn Phe Asp Gln Gly Leu Ala His Cys Phe Pro Ser 1 291 <210> SEQ ID NO: 10 292 <211> LENGTH: 12 293 <212> TYPE: PRT 294 <213> ORGANISM: Artificial Sequence 296 <220> FEATURE: 297 <223> OTHER INFORMATION: Description of Artificial Sequence: parental domain for design of microprotein display library 300 <220> FEATURE: 301 <221> NAME/KEY: VARIANT 302 <222> LOCATION: (1)..(12) 303 <223> OTHER INFORMATION: amino acid positions 4 and 9 are invariant Cys; all other positions Xaa are varied but not Cys, to 304 provide a library of 2x10(8) different peptides based on the template sequence 308 <400> SEQUENCE: 10 W--> 309 Xaa Xaa Xaa Cys Xaa Xaa Xaa Cys Xaa Xaa Xaa 310 5 10 313 <210> SEQ ID NO: 11 314 <211> LENGTH: 11 315 <212> TYPE: PRT 316 <213> ORGANISM: Artificial Sequence 318 <220> FEATURE: 319 <223> OTHER INFORMATION: Description of Artificial Sequence: parental domain for design of microprotein display library 322 <220> FEATURE: 323 <221> NAME/KEY: VARIANT 324 <222> LOCATION: (1)..(11)

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/825,517

• 09/825,517 <u>6</u> > see item 12 on Evoi Summary Sheet <210> 108 <211> 16 <212> PRT <213>(Artificial Sequence <400> 108 Asp Trp Ile Cys Asn Leu Phe Lys Asn Gln Trp Phe Cys Asn Glu Ala

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/825,517

DATE: 04/19/2001 TIME: 12:02:26

Input Set : A:\Dyax-161.app

Output Set: N:\CRF3\04192001\1825517.raw

```
L:10 M:270 C: Current Application Number differs, Replaced Current Application Number
L:100 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:149 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:203 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:309 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:331 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:353 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:375 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:400~M:341~W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:420 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
\text{L:440 M:341 W:} (46) "n" or "Xaa" used, for SEQ ID#:16
L:465\ M:341\ W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:500 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:530~M:341~W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:560 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:628 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23
L:739 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29
L:759 \ M:341 \ W: \ (46) \ "n" \ or "Xaa" \ used, for SEQ ID#:30
L:779 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:804 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
L:839 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
L:869 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34
L:899 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35
L:978 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36
L:1981 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:1981 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:
L\!:\!2054 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:110
L:2144 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:111
```



Creation date: 10-14-2003

Indexing Officer: HNGUYEN28 - HAO NGUYEN

Team: OIPEBackFileIndexing

Dossier: 09825517

Legal Date: 06-01-2001

No.	Doccode	Number of pages
1	CTMS	2

Total number of pages: 2

Remarks:

Order of re-scan issued on .....